

Technical Update

for Municipal Drinking Water Systems

Adverse Water Quality Notification Requirements

Under the *Safe Drinking Water Act, 2002* (s.18), a laboratory that conducts tests on drinking water samples from regulated drinking water systems is required to provide immediate notification of adverse results, as prescribed in the Drinking-Water Systems Regulation (O. Reg. 170/03).

Notification must be made to the local Medical Officer of Health, the Ministry of the Environment and the owner of the regulated drinking water system or the accredited operating authority of the regulated drinking water system.

The owner or operating authority of the drinking water system must also provide immediate notification of adverse results to the Medical Officer of Health, the Ministry of the Environment and to the operator(s) of any designated facility(ies) that are served by the system (with the exception of owners of large municipal residential systems). In addition, an Accredited Operating Authority must also notify the owner to ensure the owner is kept apprised.

Adverse test results are prescribed in O. Reg. 170/03 and include any result that exceeds the standard listed in Schedules 1, 2 or 3 to the Ontario Drinking-Water Quality Standards (O. Reg. 169/03). Adverse test results that must be reported also include test results obtained from continuous monitoring equipment and approved in-line microbiological testing equipment.

Under O. Reg. 170/03, owners of drinking water systems must also notify the Ministry of the Environment and the Medical Officer of Health immediately if an observation, other than an adverse test result, indicates that the drinking water system is not providing properly disinfected water to the users of water from the system.

Verbal notification

The owner or operating authority of the drinking water system and the laboratory are required to provide immediate notification to the Medical Officer of Health by speaking with a person at the office of the Medical Officer of Health or, if the office is closed, by speaking with a person at the on-call system of the health unit. Immediate notification to the Ministry of the Environment requires speaking with a person at the Ministry's Spills Action Centre (SAC).

Immediate notification by the laboratory must be made to the operating authority of the drinking water system or to the owner by speaking in person or by telephone with a person designated for that purpose by the owner or operating authority. If a designated facility is closed, notification must be made no later than the time the facility re-opens.

Written confirmation

Laboratories and owners/operators of drinking water systems must also follow-up their verbal

notification within 24 hours with a written notice (electronic copy or hard copy) of the adverse result to the Medical Officer of Health and the Ministry of the Environment's Spills Action Centre.

Next steps

The immediate report by the owner of a drinking water system in response to the adverse water test result or observation must include the actions that are being taken and whether or not corrective actions are being taken that may be required according to Schedule 17 or 18 of the Drinking-Water Systems Regulation (O. Reg. 170/03).

In addition, within seven days after resolving the problem which led to the adverse test result, the owner of the drinking water system must give written notice summarizing the action(s) taken and results achieved to the Medical Officer of Health and the Ministry of the Environment's Spills Action Centre, as well as to the interested authority for any designated facility(ies) supplied by the system.

Adverse test results

Ontario Regulation 170/03 prescribes adverse results of a test on a sample of drinking water, for the purpose of Section 18 of the *Safe Drinking Water Act, 2002* as:

- 1) A result that exceeds any of the standards prescribed by Schedule 1, 2 or 3 to the Ontario Drinking-Water Quality Standards (O. Reg. 169/03) other than the standard for fluoride.
- 2) A result indicating the presence of *Aeromonas* spp, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Clostridium* spp. or fecal streptococci (Group D streptococci)
- 3) A result indicating the presence of a pesticide not listed in Schedule 2 to the Ontario Drinking-Water Quality Standards (O. Reg. 169/03).
- 4) A result indicating that the concentration of free chlorine residual is less than 0.05 mg/L in a

distribution sample, if the drinking water system provides chlorination and not chloramination.

- 5) A result indicating that the concentration of combined chlorine residual is less than 0.25 mg/L in a distribution sample, if the drinking water system provides chloramination.
- 6) If the drinking water system is required to provide filtration, a result indicating that turbidity exceeds 1.0 NTU in a grab sample of water from the effluent line, or two samples of water from a filter effluent line that are tested by continuous monitoring equipment if: the two samples were taken 15 minutes or more apart and the later of the two samples was the first sample that was taken 15 minutes or more after the earlier sample and a report under subsection 18(1) of the Act has not been made in respect of turbidity in the past 24 hours.
- 7) If an approval or order, including an *Ontario Water Resources Act* order, identifies a parameter as health-related, and establishes a maximum concentration for the parameter, a result indicating that the parameter exceeds the maximum concentration.
- 8) A result indicating that the concentration of sodium exceeds 20 mg/L, if a report under subsection 18(1) of the Act has not been made in respect of in the preceding 60 months.
- 9) A result indicating that the concentration of fluoride exceeds 1.5 mg/L, if a report under subsection 18(1) of the Act has not been made in respect of fluoride in the preceding 60 months (for systems not providing fluoridation); and 24 hours for systems providing fluoridation.

For more information contact:

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